ENC 3246: Professional Communication for Engineers

(this class confers Composition (C) and WR 6,000 credit)

Semester	Class Times:
Instructor:	Email:
Office Hours:	Office: TUR 2215
Location:	Office phone: (352) 846-1138

Contents

Course Description....2
Student Learning Outcomes....2
Writing Credit....3
Required Texts and Technologies....4
3246 Course Learning Outcomes....4
Major Assignments....5
- Assignment Values....6

Grading....7
- Revision of Assignments....8
- Conferences and Writing Studio....8
- General Assessment Rubric....8

Course Policies and Procedures....10
- Attendance....10
- Class Recording Policy....10
- Classroom Demeanor....11
- In-Class Work....12
- Classroom Conduct....12
- Due Dates, Make-up Policy, and In-Class Work....12
- Readings....12
- Evaluations....12
- Paper Maintenance Responsibilities....12
- SUBMISSION REQUIREMENTS....13
- Academic Honesty....13

Notification Letter from Dean of Students Required for Personal Emergency....14
Students with Disabilities....14
Students in Distress....14
UF Academic Resources....15

Class Schedule.....15

Course Description

Engineers write at all stages in their careers, and writing can account for well more than 50% of engineer's workday by mid-career (Leydens J., *IEEE Transactions on Professional Communication*, vol. 51, no. 3, pp. 242-263, 2008). This course teaches professional communication for engineers. Professional communication is the practice of conveying technical information to clients and stakeholders who vary in levels of engineering knowledge. In this class students learn how to research, organize, and present technical information in professionally written documents, work in collaboration with other professionals, and use various technologies to support their communication efforts.

This course is designed to help students master a variety of communication strategies and genres of writing relevant to engineering, including everyday acts of interoffice communication, such as emails and memos, to technical documents common in the fields of engineering, including failure analyses, research reports, proposals, and progress reports. Students also learn how to write professionalizing documents, like cover letters, resumes, and interview pitches.

Students analyze writing situations in the professional engineering workplace and develop strategies for addressing audiences, organizing information, using appropriate style, and presenting the work. The objective of this class is to learn to respond in writing to complex rhetorical situations, preparing students for the professional communities they will join.

Course catalogue description:

Students master a variety of communication strategies and genres of writing relevant to engineering, such as composing email, memos, letters, technical descriptions, instructions, academic research reports and professional proposals. Students also respond to complex rhetorical situations, thus preparing for work in their professional communities. (WR)

Prerequisite: ENC 1101 or ENC 1102.

Attributes: Satisfies 6000 Words of Writing Requirement

Student Learning Outcomes

- **Content:** Students demonstrate competence in the terminology, concepts, theories and methodologies used within the discipline.
- **Communication:** Students communicate knowledge, ideas and reasoning clearly and effectively in written and forms appropriate to the discipline.
- **Critical Thinking:** Students analyze information carefully and logically from multiple perspectives, using discipline-specific methods, and develop reasoned solutions to problems.

GE SLOs will be assessed in several ways. Content knowledge will be assessed primarily through writing assignments in which students demonstrate understanding of their field. Communication will be

assessed through major writing assignments and engagement in public speaking, for which students are required to convey their knowledge and ideas clearly through collaborative in-class discussions and presentations to various audiences. Critical thinking will be assessed through students' abilities to select appropriate information and document design when writing and speaking to various stakeholders, including colleagues and the public.

Writing Credit

University Writing Requirement: The University Writing Requirement (WR) ensures students both maintain their fluency in writing and use writing as a tool to facilitate learning. Course grades now have two components. To receive University Writing Requirement (WR) credit (E6), a student must earn a course grade of C or higher **and** assignments must meet minimum word requirements totaling at least 6000 words. Thus, to earn WR-E6 credit, students must complete all the major writing assignments and meet minimum word counts.

In **ENC 3246, Professional Communication for Engineers**, these objectives are met in a variety of ways. Students write and present in project-based units across the semester.

In the Job Application Portfolio module, students learn to write the cover letter and resume targeted as engineering internships or entry-level positions. Students also practice networking strategies through the Elevator Pitch.

In the Document Design Analysis module, students learn how to format in IEEE style, cite and synthesize sources, and identify types of sources and their uses. This module focuses on the uses and reader experiences of scholarly, peer-reviewed publications and trade sources, among others.

In the Failure Analysis module, students will write about cases and modes of failures, analysis methods, and industry standards in their field of engineering. Students write a detailed description of an engineering failure (similar to a case study) that includes the context of the failure, an analysis of the failure, and recommendations for practice based on the failure.

In the Research Report module, students compose a research report that becomes the background research section of the Proposal in the next module. Working in a small group, students will establish a research question, devise a method of gathering original data, and collect the data. Students will write a research report that presents and analyzes the data collected as a group.

In the Proposal module, student teams learn to write a proposal for an engineering grant to fund an engineering solution. The proposal persuades a funding agency that a significant problem exists and propose a feasible solution. Drawing on the skills developed over the semester, students will analyze the rhetorical situation of the problem and employ communication strategies designed to persuade the audience – the funding agency – to fund the engineering solution. Student teams present their proposal publicly.

Throughout class, students practice appropriate professional communication and are expected to demonstrate mastery of clear prose with a logical argument in a manner appropriate for various professional stakeholders.

Required Texts and Technologies

- **Required**: M. Alley, *The Craft of Scientific Writing*, 4th ed. University Park, PA, Penn State University: 2018.
- Recommended: D. Hacker and B. Fister, *Research and Documentation in the Digital Age*, 7th ed. MacMillan Publishing: 2019.
- Per UF policy, using Canvas is required in this class.
- The UWP adheres to the UF Student Computing Requirements.
    - If you're in a noisy or distracting environment, we strongly recommend headphones with a microphone for synchronous classes.
    - All students should have access to a web cam of some kind.
- If offered, synchronous online classes will require that you access Zoom using your UF Gatorlink account.

Some portions of this course may be recorded. The instructor will announce when a recording is taking place. Students who keep a camera on and display a profile image are consenting to have these recorded as part of the session. Likewise, students who participate orally are consenting to have their voices recorded. If a student does not consent to being recorded, then the student should turn off the camera and microphone. The chat feature may be used for class activities. Chat content may be recorded but will only be shared with consent. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited. Students should inform instructors of accessibility or technology assistance before the course begins.

3246 Course Learning Outcomes

In ENC 3246, students will learn:

Content
- Understand the purpose of common documents in engineering writing, including proposals, failure analyses, technical descriptions, research reports, and professional correspondence
- Identify primary and secondary sources through search, evaluation, and citation
- Describe visual communication conventions of engineering

Critical Thinking
- Adapt writing to different audiences, purposes, and contexts
- Synthesize and report on the professional and technical literature in the field
- Differentiate original text from unethically-manufactured prose

Communication
- Plan, draft, revise, and edit documents for use in professional settings
- Write in a clear, coherent, and direct style appropriate for engineering communication
- Format documents in IEEE, the formatting style used in engineering communication

Major Assignments

To achieve the goals of helping students to think and communicate like discipline practitioners, this class employs project-based learning. Each project culminates in at least one major writing assignment requiring discipline-specific original content. Within projects, we employ the "LEAP" model: Learn, Explore, Analyze/Activate, Perform/Publish.

- **Learn –** readings, course lectures, and other learning materials that explain the genre and purpose of the project
- **Explore –** low stakes activities that help students identify and describe elements of the project
- **Analyze/Activate –** higher stakes activities in which students analyze, appraise, and critique authentic works
- **Perform/Publish –** content assignments for which students produce work relevant to their field

The assignments below include two group projects. For the group projects, planning and research will be collaborative, while the written work must be completed independently by each student.

Job Application Packet (400 words)
In this multi-part assignment, students will first identify an internship or job they hope to secure. Next, students will research the field and the hirer to craft tailored application materials. Students will write a letter of application and a résumé for the particular position. The elevator pitch teaches students to use their materials to market themselves at conferences and career showcases.

document Design analysis (600 words)
This short module introduces students to the following: IEEE format style, synthesizing sources, and identifying different types of sources and their uses. Namely this module focuses on the uses and reader experiences of scholarly, peer-reviewed publications and trade sources.

Failure Analysis Paper (1500 words)
In this two-part paper, students will write about cases and modes of failures, analysis methods, and industry standards in their field of engineering. Students will also write a detailed description of an engineering failure (similar to a case study) in their field which will include the context of the failure, an analysis of the failure, and recommendations for practice based on the failure. Preparation for this work includes learning about academic and trade publication in their field of engineering and document design conventions.

Group Project 1: Research Report (1200 words)
Derived from the scientific method, the research report is the most common type of report written in the field and in academia. It is the form taken by lab reports and other documents that are based on original data collected by the researcher or research team. Working in a small group, students will establish a research question, devise a method of gathering original data, and collect the data. Students

will write a research report that presents and analyzes the data collected as a group. This report becomes the background research section of the proposal, written in the next module.

Group Project 2: Proposal Project (2000 words/per student)
The capstone project will be a proposal for an actual engineering grant (like an undergraduate NSF grant) to fund an engineering solution. The proposal will seek to persuade a target audience that a significant problem exists and propose a feasible solution. Drawing on all of the skills developed over the semester, students will analyze the rhetorical situation and employ communication strategies designed to persuade the audience – the funding agency – to fund the plan. This project will also include a prospectus and a progress report.

PROSPECTUS (300 WORDS)
This is a brief report to the project supervisor emphasizing the problem statement driving the proposal, a possible feasible solution, and a tentative schedule for completion.

Progress Report (words count toward Proposal total)
Students will write a progress report on proposal work. This will track activities, problems, and progress for both the individual's tasks, and the group's overall task. The focus will be on schedules, setbacks, problems solved, and the dates and stages of the progress.

Technical Plan (words count toward Proposal total)
The Technical Plan is the core of the Proposal. It is the section wherein your team presents your solution in a series of steps. The Technical Plan describes each stage or aspect of implementation with proper context. Considerations for the Technical Plan may include - but are not limited to - categories such as: materials, design, location, conditions (environmental, social, physical), anticipated impediments or challenges, and maintenance.

PResentation
The Presentation will enable teams to provide an overview of their Proposal, emphasizing key elements such as the exigency, the technical plan, the budget, timeline, and evaluation plan.

Assignment Values

Job Application Portfolio	**80 pts**	**400 words**
Document Design Analysis	**35 pts**	**600 words**
Failure Analysis Paper	**100 pts**	**1500 words**
Research Report	**145 pts**	**1200 words**
Proposal Project + Presentation	**215 pts**	**2000 words/per student**
Prospectus	**40 pts**	**300 words**

Prep + Peer Review Assignments	**385 pts**	**N/A**
TOTAL	**1000 pts**	**6000 words**

Grading

Grading for this course will be rigorous. Do not rely on the instructor for copy-editing, even on drafts. To receive a passing grade, each paper must reach the minimum assigned word count. Please note that assignment word counts represent minimums necessary to achieve assignment goals, not mandatory values. This course follows UF grades and grading policies.

The University Writing Program uses the UF recommended grading scale.

A	100 %	to 94.0%
A-	< 94.0 %	to 90.0%
B+	< 90.0 %	to 87.0%
B	< 87.0 %	to 84.0%
B-	< 84.0 %	to 80.0%
C+	< 80.0 %	to 77.0%
C	< 77.0 %	to 74.0%
C-	< 74.0 %	to 70.0%
D+	< 70.0 %	to 67.0%
D	< 67.0 %	to 64.0%
D-	< 64.0 %	to 60.0%
E	< 60.0 %	to 0.0%

It is this class's policy NOT to round grades up or down. An 89.9 is a B+, an 93.9 is an A-, and so on.

At the discretion of the instructor, minor assignments (homework and class activities) may be dropped from or added to the schedule. If assignments are dropped, the final grade will be calculated as a percentage of the remaining points.

Earning Credit for General Education Learning Outcomes and Objectives, (C) and (WR):

Composition Credit: Students must pass this course with a "C" or better to satisfy the UF requirement for Composition (C).

University Writing Requirement: The University Writing Requirement (WR) ensures students both maintain their fluency in writing and use writing as a tool to facilitate learning. To receive University Writing Requirement (WR) credit (E6), a student must earn a course grade of C or higher **and** assignments must meet minimum word requirements totaling at least 6000 words. Thus, to earn WR-E6 credit, **students must complete all the major writing assignments**.

The instructor will evaluate and provide feedback on the student's written assignments with respect to content, organization and coherence, argument and support, style, clarity, grammar, punctuation, and mechanics. Conferring credit for the University Writing Requirement, this course requires that papers conform to the general assessment rubric (see below). More specific rubrics and guidelines applicable to individual assignments may be delivered during the course of the semester.

Revision of Assignments

During the course of the semester, the instructor **MAY** open up the option to rewrite **one** individual Major Writing Assignment (pending total class performance); your new grade will replace the previous one. Revisions must be exhaustive; that is, ALL changes recommended by the writing coach/instructor must be made or no new score will be given. Revisions are due by the last day of class, and are submitted to the "Revisions" assignment tab in Canvas.

The instructor **MAY** open up one or more optional, small extra credit assignments. Students will be notified if extra credit will be made available.

Conferences and Writing Studio

Students are encouraged to use the instructor's office hours if there are questions about progress in the course, work underway, or any other course-related concerns. If there is a conflict with the posted office hours, please contact the instructor to schedule a better time. Having conferences on assignments is often the best way to improve the quality of final drafts. The *Writing Studio* also offers one-on-one assistance on writing projects and is available to students of all levels.

General Assessment Rubric

The instructor will evaluate and provide feedback on the student's written assignments with respect to content, organization and coherence, argument and support, style, clarity, grammar, punctuation, and mechanics. Conferring credit for the University Writing Requirement, this course requires that papers conform to the following assessment rubric. More specific rubrics and guidelines applicable to individual assignments may be delivered during the course of the semester.

	SATISFACTORY (Y)	**UNSATISFACTORY (N)**

CONTENT	Papers exhibit at least some evidence of ideas that respond to the topic with complexity, critically evaluating and synthesizing sources, and provide at least an adequate discussion with basic understanding of sources.	Papers either include a central idea(s) that is unclear or off- topic or provide only minimal or inadequate discussion of ideas. Papers may also lack sufficient or appropriate sources.
ORGANIZATION AND COHERENCE	Documents and paragraphs exhibit at least some identifiable structure for topics, including a clear thesis statement but may require readers to work to follow progression of ideas.	Documents and paragraphs lack clearly identifiable organization, may lack any coherent sense of logic in associating and organizing ideas, and may also lack transitions and coherence to guide the reader.
ARGUMENT AND SUPPORT	Documents use persuasive and confident presentation of ideas, strongly supported with evidence. At the weak end of the Satisfactory range, documents may provide only generalized discussion of ideas or may provide adequate discussion but rely on weak support for arguments.	Documents make only weak generalizations, providing little or no support, as in summaries or narratives that fail to provide critical analysis.
STYLE	Documents use a writing style with word choice appropriate to the context, genre, and discipline. Sentences should display complexity and logical sentence structure. At a minimum, documents will display a less precise use of vocabulary and an uneven use of sentence structure or a writing style that occasionally veers away from word choice or tone appropriate to the context, genre, and discipline.	Documents rely on word usage that is inappropriate for the context, genre, or discipline. Sentences may be overly long or short with awkward construction. Documents may also use words incorrectly.
MECHANICS	Papers will feature correct or error-free presentation of ideas. At the weak end of the Satisfactory range, papers may contain some spelling, punctuation, or grammatical errors that remain unobtrusive so they do not muddy the paper's argument or points.	Papers contain so many mechanical or grammatical errors that they impede the reader's understanding or severely undermine the writer's credibility.

Course Policies and Procedures

Attendance

Attendance is required. The University Writing Program delivers courses where class attendance is critical to success. If students miss more than **six periods** during the term, **they will fail the entire course**. Double periods count as two absences.

However, after the third absence, students can lose up to 1/3 letter grade from final grade; after the sixth absence, you can be asked to withdraw, or you can be withdrawn from the course.

Repeated tardiness may count toward point deductions, so come to class on time and prepared. **Arriving to class after the period has already begin can count toward an unexcused absence. Two instances of lateness may account for one absence.** This applies to both in-person and synchronous Zoom classes. If students are absent or tardy for any reason, they are still responsible for the work done in class and for the assignments given that day.

NOTE: If students are absent, it is their responsibility to make themselves aware of all due dates – see me, or message me. If absent due to a scheduled event, students are still responsible for turning assignments in on time.

The UWP exempts from this policy **only** those absences due to university-sponsored events, such as athletics and band, religious holidays, quarantine, illness, or serious family emergencies. Absences related to university-sponsored events must be discussed with the instructor **prior** to the date that will be missed. For absences due to quarantine or illness, your instructor may require a signed doctor's note.

Requirements for class attendance, make-up exams, assignments, and other work in this class are consistent with university policies that can be found at
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx
Please note: If students are absent, it is their responsibility to make themselves aware of all due dates. If absent due to a scheduled event, students are still responsible for turning assignments in on time.

Class Recording Policy

The State of Florida has passed a law regarding the recording of classes by students.

- A Student may record a **class lecture** for three specified purposes as outlined in House Bill 233/Section 1004.097, Florida Statutes:
- For the student's own personal educational use;
- In connection with a complaint to the University where the recording is made
- As evidence in, or in preparation for, a criminal or civil proceeding.

- Students may audio or video record a class lecture for a class in which the student is enrolled. Students do not need advance permission, or to provide notice, to record.
- A class lecture is defined as an educational presentation delivered by faculty (instructor of record) or guest lecturer, as part of a University of Florida course, intended to inform or teach enrolled students about a particular subject. Lecture is inclusive of faculty-led discussions that are integrated into the educational presentation.
- A class lecture **does not** include lab sessions, student presentations, clinical presentations such as patient history, **academic exercises involving student participation**, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.
- A recording of a class lecture may not be published without the consent of the lecturer.
    - **Publish** is defined as sharing, transmitting, circulating, distributing, or providing access to a Recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section.
    - A recording, or transcript of the recording, is considered to be published if it is posted on or uploaded to, in whole or part, any media platform, including but not limited to social media, book, magazine, newspaper or leaflet.
- A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Classroom Demeanor

Please keep in mind that students come from diverse cultural, economic, and ethnic backgrounds. Some of the texts we will discuss and write may engage controversial topics and opinions. Diversified student backgrounds combined with provocative texts require that you demonstrate respect for ideas that may differ from your own. Disrespectful behavior will result in dismissal, and accordingly absence, from the class.

If attending class via Zoom, there are a few guidelines we expect you to follow.

- Avoid distractions during class time. Close unnecessary apps and put your phone away. Attend from an area with no distractions. (If circumstances require you to work from an area with distractions, let your instructor know. For example, if you have to share a room with family, let your teacher know that your mom might be walking in the background or your brother is doing his class at the dining room table at the same time.)
- Make sure that whatever is visible (your attire, the background) is reasonable for class. Would you wear it to class? Would you show that poster in class? Would you bring that pile of dirty clothes to class?
- Zoom requirements: During class, you are expected to be visible to the instructor and be able to communicate with the instructor by audio or writing in the chat box.
    - You will need a web cam and microphone for Zoom class. If you work in a noisy or distracting environment, we strongly recommend headphones with a microphone.

In-Class Work

Active participation is a crucial part of success in this class. Students will be expected to work in small groups and participate in group discussions, writing workshops, peer reviews, and other in-class activities. Be prepared for unannounced quizzes or activities on the readings or classroom discussion. In general, students are expected to contribute constructively to each class session.

Classroom Conduct

Much of this class is discussion-based, so it is vital that we show respect for each other's views. Students are required to turn cell phones and pagers off. Ringing phones and text messaging is an unprofessional disruption, which may result in your being asked to leave the classroom and being counted absent. If you have a personal emergency and must keep your phone on one day, please discuss it with the instructor before class.

Due Dates, Make-up Policy, and In-Class Work

Papers and drafts are due at the beginning of class or online at the assigned deadline. Late papers may not be accepted or they may be given the grade of zero. Failure of technology is not an excuse. If illness or injury prevents a student from turning in a paper on time, the student should consult with the instructor to turn in the work as soon as is feasible given the situation.

Readings

Reading assignments typically appear in the syllabus on the date on which they are due. Students should have completed these readings before coming to class that day.

Evaluations

Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu.

Paper Maintenance Responsibilities

Students are responsible for maintaining copies of all work submitted in this course and retaining all returned, graded work until the semester is over. Should the need arise for a resubmission of papers or a review of graded papers, it is the student's responsibility to have and to make available this material.

SUBMISSION REQUIREMENTS

Most assignments will be submitted via Canvas. **Submitting an assignment requires that students upload their correct document by the deadline, ensure that the assignment uploads properly, and that**

the file opens and is viewable for the instructor. Doing so is required for each assignment. **An assignment is not complete if the student does not follow these uploading requirements.**

Because professional communication varies in document design, all papers will have specific formatting guidelines to follow. Please read these carefully and ask questions early to avoid losing points.

Papers and drafts are due online at the assigned day and time. Late papers will not be accepted. Failure of technology is not an excuse. If illness or injury prevents a student from turning in a paper on time, the student should consult with the instructor to turn in the work as soon as is feasible given the situation.

Academic Honesty

As a University of Florida student, your performance is governed by the UF Student Honor Code, (https://catalog.ufl.edu/ugrad/current/advising/info/student-honor-code.aspx). The Honor Code requires Florida students to neither give nor receive unauthorized aid in completing all assignments. Violations include cheating, plagiarism, bribery, and misrepresentation, all defined in detail at the above site.

Plagiarism is a serious violation of the Student Honor Code. The Honor Code prohibits and defines plagiarism as follows:

- Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution
- Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authorized by the student
- Unauthorized use of materials or resources
- Prohibited collaboration or consultation
- Submission of paper or academic work purchased or obtained for an outside source

NOTE on AI-assisted or AI-generated writing:

The UF Honor Pledge ends with: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

Using artificial intelligence software, such as GPTs, is unauthorized for this class unless sanctioned, and therefore violates this Honor Pledge. Students in this course agree to abide by ALL policies related to the Student Honor Code here.

Authorized use of AI-assist will be stated by the instructor during specific class sessions or for specific projects.

(University of Florida, Student Honor Code, 8, October, 2013)
University of Florida students are responsible for reading, understanding, and abiding by the entire Student Honor Code. The University Writing Program takes plagiarism very seriously and treats instances of plagiarism as dishonesty and as a failure to comply with the scholarly requirements of this course. You commit plagiarism when you present the ideas or words of someone else as your own. If you are unsure

if what you are doing is considered academic dishonesty, ask your instructor before turning in an assignment.

Each student's work may be tested for its originality against a wide variety of databases by anti-plagiarism sites to which the University subscribes, and negative reports from such sites may constitute proof of plagiarism. Some (but not all!) examples of plagiarism are copying-and-pasting anything from the Internet without proper quotations and attributive tags, and using work you have previously submitted without permission from the instructor.

Important tip: There should never be a time when you copy and paste something from the Internet and don't provide the exact location and citation information for the source.

If you commit academic dishonesty, you will receive a zero for the assignment, and the instructor will submit the incident to the Dean of Students Office as an Honor Code violation.

The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obliged to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor in this class. For more information, see the Student Conduct and Conflict Resolution Web site: https://www.dso.ufl.edu/sccr or call 352-392-1261 x207.

Notification Letter from Dean of Students Required for Personal Emergency

Students who experience a family or personal emergency (death in the family, unplanned hospitalization, etc.) may contact the Dean of Students Office and request notification letters be sent to their professors. Students are required to provide faculty members with appropriate documentation to support their absence unless, due to the nature of the issue, the information is provided to and verified by the Dean of Students' Office.

Students with Disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center – click here to get started. It is important for students to share their accommodation letter with their instructor and discuss their access needs as early as possible in the semester.

Students in Distress

For guidance during distressing situations, please contact U Matter We Care or the Dean of Students Office. They can help students navigate resources and academic procedures for personal, medical, and academic issues.

- U Matter We Care: http://umatter.ufl.edu, umatter@ufl.edu, 352-294-2273 (CARE)Dean of Students: https://dso.ufl.edu/, 202 Peabody Hall, (352) 392-1261

- Counseling and Wellness Center: https://counseling.ufl.edu/, 3190 Radio Road, (352) 392-1575
- Field and Fork Pantry: https://fieldandfork.ufl.edu/, located near McCarty B, 352-294-2208
- Student Health Care Center: http://shcc.ufl.edu/, multiple locations, (352) 392-1161
- Aid-a-Gator: https://www.sfa.ufl.edu/aidagator/, S-107 Criser Hall, (352) 392-1275

UF Academic Resources

- *E-learning technical support*: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.
- *Career Connections Center*: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- *Library Support*: Various ways to receive assistance with respect to using the libraries or finding resources.
- *CLAS Academic Resources:* 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring
- *Writing Studio:* 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. Online only for Fall 2020.
- *Student Complaints On-Campus*: Visit the Student Honor Code and Student Conduct Code webpage for more information.
- *On-Line Students Complaints*: View the Distance Learning Student Complaint Process.

Class Schedule

Week 1 – (Aug 21-22)

Session 1

- Learning objective: Course orientation and the professional profile
- Course Introduction -- Syllabus: Goals, policies, assignments, textbooks and readings, and course organization, brief introductions
- HW:
  - *CSW*: Sec. 9, An effective email is a balance between *I* and *you*
  - Start looking for *current* internships/entry-level jobs you could reasonably apply to in the next year. Research the firm or company and learn write down info on the following to use in class: mission, current projects, their cultural identity.
  - Read this Reddit on writing/comms and come to class with some takeaways

Week 2 – (Aug 25-29)

Session 1

- Learning objective:
    - Professional profile and audiences for engineering documents
    - Features of professional correspondence
- Introduce
    - Professional Bio Assignment / Building LinkedIn profile
- Lecture and Activity:
    - Discussion: The role of writing and communication in engineering work
    - PPT: Building a Bio / LinkedIn profile
    - PPT: Looking for Internships/Jobs – how and where to start searching
    - In-class drafting of Professional Bio / LinkedIn profile – focus on showcasing knowledge and interests in the fields (publications, innovations, your work)

Session 2

- Learning objective:
    - Effectively writing for internships and jobs – style, tone, content
- Introduce:
    - Major Assignment: Job Application Materials
- Lecture and Activity:
    - PPT: Writing Resumes and mindfulness about Application Tracking Systems
    - Sample Resume Review - Reading and Writing for the Job Ad
- HW
    - Start searching for an internship or job to write toward
    - *CSW*: Sec. 1, Analyzing the Audience, Purpose, and Occasion (covers knowing whom you're writing for, to tailor your document)

Week 3 – (Sep 1-5)

Session 1

- Learning objective:
    - Effectively writing for internships and jobs – style, tone, content
- Lecture and Activity:
    - PPT: Writing Cover Letters
    - Mock Peer Review on Student Samples - Cover Letters and Resumes
    - In-class practice: your internship choice / targeting the language of the ad

Session 2

- Activity
    - Peer Review - Job App Portfolio
    - Practice Elector Pitches competition
- HW:
    - Identify an engineering issue, challenge, or area of development you're interested in

Week 4 – (Sep 8-12)

Session 1

- Learning objective: Identifying credible sources in your field of engineering
- Assignment: Analyzing Publications in Your Field of Engineering – Document Design
- Lecture and Activity:
    - **o** PPT: Scholarly Sources and Trade Sources
    - **o** PPT: Searching for sources – UF libraries, databases, the web
- HW
    - OPTIONAL Read: *CSW:* Sec. 7, Organizing the Content for the Audience (covers organization for technical documents)
    - Find one academic and one trade source on an engineering topic of interest; *read and annotate them in prep* for class (ideally, all from the same field).

Session 2

- Learning objective: Comparing scholarly and trade sources
- Lecture and Activity:
    - PPT: Comparing scholarly journals and trade publications in your field
    - PPT: IEEE Citation style: Document formatting style, in-text citations and wording, composing a References page
    - In-class practice: Scholarly versus Trade Publications
- HW:
    - Bring in one scholarly article and one trade article – these must be *different articles* from our last activity

Week 5 – (Sep 15-19)

Session 1

- Learning objective: Synthesizing sources
- Assignment: Analyzing Publications in Your Field – Document Design
- Lecture and Activity:
    - PPT: Synthesizing Sources in Your Field
    - In-class drafting for Analyzing Publications in Your Field
- HW:
    - Read: *CSW:* Sec. 2, Balancing Precision with Clarity (covers wording and clarity in technical writing)
    - Read: NDT methods in engineering excerpts – read and annotate these *in prep* for next session

Session 2

- Quiz:
    - Scholarly Documents Quiz

- Activity:
    - In-class practice: Timed synthesis writing from article excerpts on Nondestructive Testing
- HW:
    - Read the Failure Analysis Paper assignment description and come to class with two topic ideas.

Week 6 – (Sep 22-26)

Session 1

- Learning objective – Understanding failure analysis: cases, modes/types of failure, methods of testing, industry standards
- Assignment: The Failure Analysis Paper
- Lecture and Activity:
    - PPT: Writing Part 1 of the FA Paper
    - In-class drafting: Disc 1 – Planning the FA Paper
- HW
    - Read: CSW: Sec. 6, Beginning with the Familiar (covers structuring a document and defining technical terms)
    - Failure Analysis Subject Guide

Session 2

- Learning objective – Understanding failure analysis: case description, case analysis, and recommendations
- Lecture and Activity
    - PPT: Writing Part 2 of the FA Paper
    - In-class practice: sample student and professional FA Papers
    - In-class drafting: Disc 2 – Methods and Types of Testing
- HW
    - Read: Failure Analysis and Materials Testing – A Subject Guide
    - Outline for Part 2 and begin drafting

Week 7 – (Sep 29-Oct 3)

Session 1

- Learning objective: Locating, citing and wording standards
- Lecture and Activity:
    - PPT: Tutorial – how to locate, cite, and word standards and codes – an introduction to the databases and standards-producing associations
        - In-class practice: find standards related to your failure case and-or testing of that failure
- HW:

- Draft Part 2, Analysis or Recommendations sections, wherein you cite at least one standard or code for an in-class peer review

Session 2

- Mock peer-review: additional sample professional and student Failure Analysis papers
- Lecture and Activity:
  - In-class drafting: Disc 3 – Analysis and Recommendations for your Case of Failure
  - Prelim peer review

Week 8 – (Oct 6-10)

Session 1

- **Conferences – FA Paper**

Session 2

- **Conferences – FA Paper**
- HW:
  - Read the Proposal and Research Report Assignment descriptions; come to class with topic ideas for the Proposal so you can post the topic to find teammates with similar interests

Week 9 – (Oct 13-17)

Session 1

- Learning objective:
  - Understand why the Proposal requires a Research Report
- Assignment: The Proposal and the Research Report
- Introduce: The Research Report – gathering data for a solution to an engineering problem
- Lecture and Activity
  - PPT: Why the Proposal needs a Research Report
  - In-class drafting: Pitching Proposal topic interests to form teams
- HW:
  - **GRADED Discussion: Use discussion board to find prospective teammates – respond to others and form a team *before our next session***
  - OPTIONAL Read: How to write a research journal article
  - OPTIONAL Read: Writing research reports in engineering

Session 2

- Assignment: The Research Report
- Lecture and Activity:

    - PPT: Preparing to Write the Research Report
    - PPT: Research questions, hypotheses, and problem statements
    - In-class team drafting of Proposal Topic Pitch and Research Report focus
    - PPT: Methods approaches: Using Qualtrics - writing and distributing surveys; observations and logbooks; extended literature reviews
- HW:
    - Get your methods plan finalized – bring draft of methods statement (with your survey questions, logbook, and-or literature review criteria to class)
    - **Begin your investigation / deploy survey as soon as I give feedback on your methods (survey, observation, and-or lit review plan)**
    - Bring in at least one source per teammate for your Research Report

Week 10 – (Oct 20-24)

[NOTE: content in this week is also shown in weeks above and below; however, this same content is left in place in the Spring Break week as well, in order to visualize its placement in the Fall semester.]

Session 1

- **SPRING BREAK**

OR

- **Conferences – Investigation approaches**
- HW:
    - **Begin your investigation / deploy survey as soon as I give feedback on your methods (survey, observation, and-or lit review plan)**
    - Bring in at least one source per teammate for your Research Report

Session 2

- **SPRING BREAK**

OR

- Learning objective: Learn the IMRD format for engineering research
- Lecture and Activity: Preparing to write the Research Report
    - PPT: Writing the Methods and Results sections
    - PPT: Writing the Intro and Conclusion sections
    - In-class drafting: Using sources to compose the Literature Review and Gap statement
- HW
    - OPTIONAL: Read *CSW*: Sec. 7, Organizing the Content for the Audience (covers organization for technical documents)
    - OPTIONAL: Sec. 5, Connecting Your Ideas (covers sentence coherency, graphs, illustrating)

- Start reviewing your data and identify important findings, trends, or patterns – come to class with ideas for your team

Week 11 – (Oct 27-31)

Session 1

- Learning objective: Learn the IMRD format for engineering research
- Lecture and Activity: Preparing to write the Research Report
  - PPT: Writing the Methods and Results sections
  - PPT: Writing the Intro and Conclusion sections
  - In-class drafting: Using sources to compose the Literature Review and Gap statement
- HW
  - OPTIONAL: Read *CSW*: Sec. 7, Organizing the Content for the Audience (covers organization for technical documents)
  - OPTIONAL: Sec. 5, Connecting Your Ideas (covers sentence coherency, graphs, illustrating)
  - Start reviewing your data and identify important findings, trends, or patterns – come to class with ideas for your team

Session 2

- Learning objective: writing the Results and Discussion sections
- Activity:
  - Sample Research Reports – mock peer review
  - In-class practice: Identify important findings, trends, or patterns in your findings
- HW:
  - Draft the Research Report for conference

OR

- **Conferences – Research Report**

Week 12 – (Nov 3-7)

Session 1

- Learning objective: writing the Results and Discussion sections
- Activity:
  - Sample Research Reports – mock peer review
  - In-class practice: Identify important findings, trends, or patterns in your findings
- HW:
  - Draft the Research Report for conference

Session 2

- **Conferences – Research Report**

Week 13 – (Nov 10-14)

Session 1

- Learning objective: The Proposal Project and the Prospectus
- Lecture and Activity:
    - PPT: Understanding Proposals and RFPs
    - PPT: Topics that meet CFPs – feasibility of locality, scope, budget
    - PPT: Writing Prospectus
    - In-class drafting the Prospectus
- HW:
    - Draft the Prospectus
    - OPTIONAL Read: I wrote the book on user-friendly design – what I see today horrifies me

Session 2

- Learning objective: Adapting the Research Report for the Background Research section of the Proposal
- Lecture and Activity:
    - PPT: Adapting the Research Report for the Background Research section
    - In-class planning and drafting
- HW:
    - Draft the Background Research section

Week 14 – (Nov 17-21)

Session 1

- Learning objective: Technical Plan, Budget and Schedule, Evaluation Plan
- Lecture and Activity:
    - Open sample Proposal – review structure
    - PPT: Drafting the Technical Plan, Budget and Schedule, Evaluation Plan
    - Activities
        - Comparing Tech Plans
        - In-class drafting of Tech Plan
- HW:
    - Allocate team members to draft sections of Tech Plan

Session 2

- Learning objective: The Progress Report and Presentation
- Lecture and Activity
    - Assignment: Progress Report
    - PPT: The Progress Report
    - Sample Progress Reports – mock peer review
        - In-Class drafting of Progress Report
    - INTRO – Presentation requirements – show teams list
    - In-class drafting: Discussion #5: Tech Plan drafting and Evaluation Plan outline

- HW:
    - **Teams post drafts of Technical Plan for another team to review in next session**

Week 15 – (24-28)

Thanksgiving Break

OR

Session 1

- Lecture and Activity
    - PPT: The Letter of Transmittal and Executive Summary
    - Sample student and professional Proposals – mock peer review
    - Teams peer review Technical Plans
    - Presentation check-ins

- HW:
    - Finalize and practice the Presentation of the Proposal

Session 2

- **Team Presentations of Proposal Projects**

Week 16 – (Dec 1-3)

- **Team Presentations of Proposal Projects**